

REMARKS

Claims 1-9 are all the claims pending in the application. Applicant adds new claims 10-17.

The Examiner has approved the drawings filed with the application on February 1, 2002.

The Examiner objects to claims 1 and 6 for minor informalities. Applicant amends claims 1 and 6 as shown in the Appendix to overcome these objections and to more clearly recite the features of the invention. Applicant notes that these amendments recite features that were inherent in the original claims.

The Examiner rejects claims 3 and 4 under 35 U.S.C. §112, second paragraph, as being indefinite. Applicant amends claims 3 and 4 to more clearly recite elements of these dependent claims that were believed to be inherent in the original dependent claims and the independent claims. The modifications do not narrow the scope of the claims.

The Examiner rejects claims 1, 2, 5, and 7 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 3,594,087 to Miranda. Applicant amends claim 1 to describe the invention more particularly. Miranda does not disclose or suggest all of the features of Applicant's invention as claimed in claim 1.

For example one of the features of Applicant's invention as claimed in claim 1 is "an edge of the light-transmissive sheet-like body...is detected". Miranda discloses measuring the optical density of the media 22 after the beam of light passes through it twice (Miranda, Figure 2 and column 4, lines 7-23). But Miranda discloses nothing about detecting the edge of the media 22 as required by claim 1. Because Miranda does not disclose or suggest this feature, claim 1 is

not anticipated by (i.e. is not readable on) Miranda at least for this reason. Claims 2, 5, and 7 are allowable at least by virtue of their dependence on base claim 1.

The Examiner rejects a number of claims under 35 U.S.C. § 103(a). The Examiner rejects claims 3 and 4 under 35 U.S.C. §103(a) as being unpatentable over Miranda in view of U.S. Patent 4,511,246 to Nishiyama; rejects claims 6 and 8 under 35 U.S.C. §103(a) as being unpatentable over Miranda in view of U.S. Patent 6,489,624 to Ushio et al; and rejects claim 9 under 35 U.S.C. §103(a) as being unpatentable over Miranda. Applicant respectfully traverses these rejections.

Because Miranda does not disclose or suggest all of the features of independent claim 1, and because the Examiner acknowledges that Nishiyama and Ushio do not supply the deficiencies in Miranda with respect to claim 1, the combination of Miranda and these references does not disclose all of the features of base claim 1. Claims 3, 4, 6, 8, and 9 are allowable at least by virtue of their dependency on independent claim 1.

In addition, Applicant noted that Miranda does not disclose or suggest the features of new claims 10-16. For example, Miranda does not disclose using CCD cameras as light detecting means as required by claim 10. Furthermore, as noted above, Miranda does not disclose determining the edge of the light-transmissive sheet-like body as required by new claims 11-17.

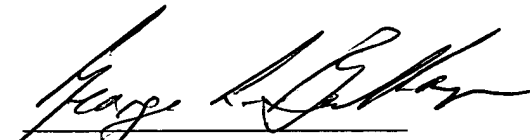
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned attorney at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 10/060,148

Attorney Docket No. Q67564

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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PATENT TRADEMARK OFFICE

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APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

1. (Amended) An apparatus for detecting a light-transmissive sheet-like body, comprising:
a light source unit for emitting illuminating light;
a reflector for reflecting the illuminating light;
light detecting means for detecting the illuminating light which is reflected by said reflector; and
a converging optical system for leading the illuminating light reflected by said reflector to said light detecting means,
wherein an edge of a ~~the~~ light-transmissive sheet-like body placed between said converging optical system ~~light source unit~~ and said reflector is detected based on a difference between two types of information, said two types of information including information of said illuminating light which is ~~detected by~~ led to said light detecting means through said edge and another information of said illuminating light which bypasses said edge and is led to said light detecting means.
3. (Amended) An apparatus according to claim 1, further comprising a plurality of converging optical systems wherein said converging optical systems are spaced from each other along the length of said light-transmissive sheet-like body.

4. (Amended) An apparatus according to claim 3, further comprising:
a plurality of light detecting means; and
processing means for processing information obtained by said plurality of light detecting means to calculate the length of said light-transmissive sheet-like body.
6. (Amended) An apparatus according to claim 5, wherein said telecentric optical system comprises:
a condenser lens disposed on a side closer to said reflector; and
an aperture member disposed at a focal point of said condenser lens ~~disposed on a side~~ closer to said light detecting means.

Claims 10-17 are added.